

Remarks

Claims 13-22 are pending. By this Amendment, claims 23-26 have been cancelled and claim 13 has been amended in the manner suggested by the Examiner in the above-referenced Final Office Action. Reconsideration is requested in view of the above amendment and the following remarks.

Claims 18-22 have been allowed. Claim 14 is objected to as being based upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants gratefully acknowledge the Examiner's indication of allowable subject matter.

Claim 13 is rejected under 35 U.S.C. 102(e) over Aoki et al. (US 6,079,330), hereafter "Aoki." Claims 13 and 15-17 are rejected under 35 U.S.C. 103(a) over Taylor et al. (US 5,349,905), hereafter "Taylor," in view of Aoki. These rejections are defective because Aoki and Taylor, taken alone or in combination, fail to disclose each and every feature of the claims as required by 35 U.S.C. 102(e) and 103(a).

Independent claim 13 sets forth a "printing apparatus for printing an image on a receiving substrate, wherein the printing apparatus comprises: an ink applicator for

Serial No.: 09/781,861

6

imagewise applying liquid ink to a side of the receiving substrate; a drying section having an active drying device for active drying of the receiving substrate after said ink application; a transportation device for transporting the receiving substrate along a path past said ink applicator and through said drying section; wherein said path includes a first substantially straight portion at said ink applicator, and a first and a second convex curve in said drying section, said first and second convex curve separated by solely a second substantially straight portion."

Aoki fails to disclose or suggest the claimed first and second convex curves in the drying section "separated by solely a second substantially straight portion." In the present invention, this feature provides a drying path between two convex curves along which the printed wet image is not touched by any other parts of the printing apparatus and thus preserves the integrity of the printed image on the printing medium. Instead, Aoki uses concave curves in addition to convex curves in the drying path with the risk for smudging or damaging the image. Aoki further describes the constraints imposed on the heating rollers and the ink properties in order not to damage the printed image while it is still "unstable" (see e.g., Aoki, col. 4, lines 18-31).

Taylor also fails to disclose or suggest the claimed

Serial No.: 09/781,861

7

first and second convex curves in the drying section "separated by solely a second substantially straight portion." Taylor discloses what can be done in the event of peaks in ink load of the printed image. Taylor suggests to lower the transportation speed of the printed sheet so as to increase its residence time in the dryer and thereby eliminating peak drying power requirements (see, e.g., Taylor, col. 2, lines 7-15).

Because Aoki teaches away from the invention set forth in claim 13 by providing a different solution to the problem of touching an "unstable" ink image, and Taylor only discloses a straight path through the dryer, Applicants submit that the subject matter of claim 13 is patentable over the combination of Taylor and Aoki.

Applicants also submit that the subject matter of claims 15-17 is believed to be patentable over the teaching of Taylor and Aoki.

The sheet-fed ink jet printer with vacuum belt transport means disclosed by Taylor, is designed to decrease the transportation speed of the printed sheet within the printer in the event of high ink loads on the recording medium, so as to reduce peak power requirements in the printing or drying station. While creating compatibility with standard power lines available in most office and home

environments (see, e.g., Taylor, col.1, lines 51-57), this concept blocks improvements towards increased throughput and higher printing speeds. As such, one skilled in the printing art, looking for high throughput ink jet systems, would not be motivated to combine the teachings of Taylor and Aoki in the manner suggested by the Examiner.

For at least the reasons set forth above, Applicants submit that all pending claims are patentable over Aoki and Taylor, taken alone or in combination.

If the Examiner believes that any further discussion of the invention would be helpful, perhaps in the form of an Examiner's Amendment, Applicants' representative is available at (518) 449-0044, and earnestly solicits such discussion.

Respectfully submitted,

John A. Merecki

By: John A. Merecki Date: 5/5/04
Reg. No. 35,812

Hoffman, Warnick & D'Alessandro LLC
Three E-Comm Square
Albany, New York 12207
518-449-0044
jmerecki@hwdpatents.com

Serial No.: 09/781,861

9